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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,017	08/21/2001	Stuart Allman	CYPR-CD01072	9092

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EXAMINER

AUVE, GLENN ALLEN

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n No.

09/935,017

Applicant(s)

ALLMAN, STUART

Examiner

Glenn A. Auve

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9-20 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is rejected based on lack of positive antecedent basis of "said serial bus" on lines 9-10 and 15.

Claims 10-15 are rejected because they depend on claim 9.

Claim 12 is also rejected based on lack of positive antecedent basis of "said serial bus" on line 3.

Claim 14 is also rejected based on lack of positive antecedent basis of "said plurality of I/O bus signals" on lines 1-2.

Claim 15 is also rejected based on lack of positive antecedent basis of "said serial bus" on line 1.

### ***Claim Rejections - 35 USC § 102***

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 16-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art (AAPA).

As per claim 16, AAPA shows translating between I/O signals of the peripheral device logic and serial bus signals wherein the serial bus signals are fewer in number than the I/O signals (the USB interface 120 in fig.1 translates signals between the I/O device and the USB);

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electronically isolating the bus signals to generate isolated bus signals (page 5 of the specification and the isolator 130 in fig.1); and interfacing the isolated bus signals over the serial bus to electrically isolate the peripheral device logic from the serial bus (page 5). AAPA shows all of the steps recited in claim 16.

As for claim 17, the argument for claim 16 applies. AAPA also shows that the isolating step comprises translating between the serial bus signals and first unidirectional signals (160); electrically isolating the first unidirectional signals (160) and second unidirectional signals (180) using optical isolation elements; and translating between the second unidirectional signals and the isolated bus signals (page 5). AAPA shows all of the steps recited in claim 17.

As for claim 18, the argument for claim 17 applies. AAPA also shows that the bus signals and isolated bus signals comprise bi-directional signals (112,114). AAPA shows all of the steps recited in claim 18.

As for claim 19, the argument for claim 18 applies. AAPA also shows that the bus signals comprise differential signals (inherent in USB). AAPA shows all of the steps recited in claim 19.

As for claim 20, the argument for claim 16 applies. AAPA also shows that the translating is performed by a microcontroller (inherent in the implementation of USB interface 120 in that some sort of control logic must be present to control the interface). AAPA shows all of the steps recited in claim 20.

#### ***Allowable Subject Matter***

4. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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5. The following is a statement of reasons for the indication of allowable subject matter: Claims 1 and 9 each include limitations directed to a pair of unidirectional to bi-directional converters and how they are coupled with the isolator and other circuitry. This combination of limitations does not appear to be present in the prior art and would not have been obvious.

Claim 21 also includes limitations directed to a pair of unidirectional to bi-directional converters and a bus direction signal. This combination of limitations does not appear to be present in the prior art and would not have been obvious.

### ***Conclusion***


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references deal with USB interfacing and show some bus isolation, but they do not include the details claimed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn A. Auve whose telephone number is (703) 305-9638. The examiner can normally be reached on M-Th 8:00 AM-5:30 PM, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Glenn A. Auve  
Primary Examiner  
Art Unit 2111

gaa  
February 4, 2004